



Bill is a Senior Member of the Technical Staff at the CERT® Coordination Center—a unit of the Software Engineering Institute—specializing in analysis and modeling of software vulnerability.

Bill has served in various capacities within the CERT/CC since he joined in 1995. Before join CERT, he played various technical and leadership roles the computing and networking infrastructures at the University of Pittsburgh and Louisiana Tech University. He holds a B.S. in physics and an M.S. in computer science from Louisiana Tech University.

Selected Publications

William L. Fithen, Shawn V. Hernan, Paul F. O'Rourke, and David A. Shinberg. "Formal Modeling of Vulnerability." *Bell Labs Technical Journal* 8(4), 173-186 (2004).

William A. Arbaugh, William L. Fithen, and John McHugh. "Windows of Vulnerability: a Case Study Analysis." *IEEE Computer*, 2000.

BSI Articles

Name	Content Areas
Assume that Human Behavior Will Introduce Vulnerabilities into Your System	knowledge/guidelines
Be Suspicious about Trusting Unauthenticated External Representation of Internal Data Structures	knowledge/guidelines
Carefully Study Other Systems Before Incorporating Them into Your System	knowledge/guidelines
Clear Discarded Storage that Contained Secrets and Do Not Read Uninitialized Storage	knowledge/guidelines
Design Configuration Subsystems Correctly and Distribute Safe Default Configurations	knowledge/guidelines
Do Not Perform Arithmetic with Unvalidated Input	knowledge/guidelines

Do Not Use the "%n" Format String Specifier	knowledge/guidelines
Ensure that Input Is Properly Canonicalized	knowledge/guidelines
Ensure that the Bounds of No Memory Region Are Violated	knowledge/guidelines
Follow the Rules Regarding Concurrency Management	knowledge/guidelines
Guidelines Overview	knowledge/guidelines
Handle All Errors Safely	knowledge/guidelines
If Emulation of Another System Is Necessary, Ensure that It Is as Correct and Complete as Possible	knowledge/guidelines
Never Use Unvalidated Input as Part of a Directive to any Internal Component	knowledge/guidelines
Treat the Entire Inherited Process Context as Unvalidated Input	knowledge/guidelines
Use Authentication Mechanisms, Where Appropriate, Correctly	knowledge/guidelines